

Remarks

In the instant Office Action dated February 8, 2008, the following objection and rejection are noted: claims 2, 4, 7 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form; and claims 1, 3, 5-6, and 8 stand rejected under 35 U.S.C. § 103(a) over Cabral, Jr. *et al.* (U.S. Patent No. 6,700,203) in view of Grivna *et al.* (U.S. Patent No. 6,984,860).

In the Office Action Response dated November 21, 2007, Applicant added claims 12-19, which have not been addressed by the Examiner in the instant Office Action (*e.g.*, claims 12-19 are not identified anywhere in the instant Office Action). In response to the potential allowability of claims 2, 4, 7 and 9-11, Applicant has rewritten claim 4 in independent form as new claim 13, which incorporates limitations of the base and any intervening claims. Applicant submits that, as is consistent with both the instant and previous Office Actions, claim 13 is in condition for allowance over the cited references. New claims 14-19 depend from claim 13 and are allowable over the cited references for at least the same reasons as claim 13. Accordingly, Applicant respectfully requests that the Examiner identify claims 13-19 as being allowed. The Examiner also has not presented any rejection of claim 12, which depends from claim 1. Thus, Applicant submits that claim 12 should be identified as allowable.

Applicant respectfully traverses the § 103(a) rejection of claims 1, 3, 5-6, and 8 because the cited combination fails to correspond to the claimed invention which includes, for example, aspects directed to a small capacitor and a large capacitor being provided as vertical trench capacitors. The claimed invention requires that the small and large capacitors are each formed as a single vertical trench capacitor (*i.e.*, the claimed invention has different sizes of vertical trench capacitors). The Examiner acknowledges that the Cabral reference “does not describe a combination of small and large capacitance trenches.” *See* page 4:4-5 of the instant Office Action. The Examiner then erroneously asserts that such a configuration is suggested by Cabral “for sizing the capacitor as desired” as taught at Col. 9:5-16. In actuality, the cited portions of Cabral teach that any desirable number of the deep-trench capacitors 84 can be formed in parallel to achieve a large capacitor (*e.g.*, a 1nF capacitor). *See, e.g.*, Figure 5 and Col. 9:5-16. Cabral’s deep-trench capacitors each have the same capacitance (*e.g.*, 40fF), with a multitude of cells

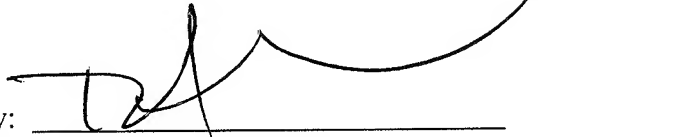
needing to be connected together in parallel in order to form a large capacitor (*e.g.*, a 1nF capacitor). *See, e.g.*, Figure 6A, Col. 9:21-25 and Col. 9:49-55. Thus, each of Cabral's deep-trench capacitors (*e.g.*, 84 and 92) has the same capacitance. The Examiner also cites to various portions of the Grivna reference; however, the Examiner does not assert that Grivna teaches or suggests small and large capacitors being provided as vertical trench capacitors as in the claimed invention. Thus, the Examiner fails to cite prior art that teaches or suggests each aspect of the claimed invention as required. As such, the cited combination does not correspond to the claimed invention. Accordingly, the § 103(a) rejection of claims 1, 3, 5-6, and 8 is improper and Applicant requests that it be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

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